

In the claims:

Amend the claims as follows:

1. (Currently amended) A method for determination of stand attributes by means of a laser scanner and images, in which a point cloud with three-dimensional information about the target points and describing the stand is produced by means of a laser scanner and overlapping images, comprising:

~~a) producing overlapping images are produced by aerial or terrestrial photography,~~

~~producing a point cloud by using a laser scanner,~~

~~b) densifying the point cloud with three-dimensional information from the overlapping images to produce a denser point cloud with more target points with three-dimensional information is produced by densifying the point cloud produced by the laser scanner with information from the overlapping images produced by the aerial or terrestrial photography, and~~

~~c) determining the stand attributes by means of the densified point cloud.~~

2. (Currently amended) The method according to claim 1 wherein ~~after step a), the point cloud produced by laser scanning and the image information and the overlapping images are combined to belong to the same target.~~

3. (Previously presented) The method according to claim 1 wherein the three-dimensional information of the point cloud produced by means of a laser scanner is formed of three-dimensional coordinates for the target points.

4. (Currently amended) The method according to claim 1 wherein ~~for step c), the points measured from the a surface of the terrain and the points measured above the surface of~~

the terrain are distinguished from the point cloud produced by laser scanning, and three-dimensional points are added close to those points that are produced by a laser scanner and that correspond to points measured above the surface of

5 the terrain.

5. (Currently amended) The method according to claim 1  
wherein in order to determine three-dimensional ~~coordinated~~  
coordinates for the target points the data achieved from the  
10 laser measurements and the image information of the aerial or  
terrestrial photography are calculated into the same  
coordination system.

6. (Currently amended) The method according to claim 1  
15 wherein ~~in step b},~~ the three-dimensional target coordinates  
of the additional points are determined from the overlapping  
images produced by aerial or terrestrial photography by means  
of photogrammetric methods.

20 7. (Currently amended) The method according to claim 1  
wherein ~~step e}~~ the step of determining is performed by means  
of a pattern recognition method, by determination of models  
describing the crowns of the stand and the terrain, or by  
means of coordinate information.

25 8. (Previously presented) The method according to claim 1  
wherein such a number of target points is applied that  
individual trees and groups of trees are discriminated.

30 9. (Currently amended) The method according to claim 1  
wherein ~~in step a},~~ brightness values are produced for the  
points in addition to the three-dimensional coordinates by  
means of a camera or spectrometry.

10. (Previously presented) The method according to claim 1  
wherein the laser scanner material used for the creation of a  
denser point cloud has several pulses modes or profile data.

5 11. (Previously presented) The method according to claim 1  
wherein a three-dimensional presentation of the stand height  
is achieved by calculating, from the denser point cloud, the  
difference between a crown model corresponding to the upper  
parts of the stand and a digital terrain model corresponding  
10 to the surface of the terrain.

12. (Previously presented) The method according to claim 1  
wherein an anisotropy correction for the brightness values of  
an image is done for individual trees or groups of trees by  
15 means of the denser point cloud by using a crown model  
created by means of the denser point cloud.

13. (Currently amended) The method according to claim 1  
wherein a change in the stand can be calculated by means of  
20 denser point clouds or by means of surface models  
corresponding to them achieved at two different time points,  
~~the change consisting of for instance a height or breadth~~  
~~growth, thinnings and fallen trees.~~

25 14. (Previously presented) The method according to claim 1  
wherein the identification of individual trees or groups of  
trees is done by using the denser point cloud, the height  
model, surface models, intensity data of the laser scanning,  
profile data and/or brightness values of the images by means  
30 of a known pattern recognition method.

15. (Previously presented) The method according to claim 1  
wherein the identification of individual trees or groups of  
trees takes place by using images and the height for a

desired tree is achieved by means of denser point cloud material.

16. (Previously presented) The method according to claim 1  
5 wherein old inventory information, earlier images and/or  
laser materials is used for evaluation or updating of stand  
attributes.

17. (Previously presented) The method according to claim 1  
10 wherein the tree geometry and/or the delineation of the tree  
is determined by means of sample points achieved inside the  
area restricted by the tree either two-dimensionally or  
three-dimensionally in order to identify the tree species or  
for modeling of the stand.

15  
18. (Previously presented) The method according to claim 1  
wherein the attributes of individual trees or groups of  
trees, which are achieved by analyzing the canopy height  
model, are the location of the trees, age, height, crown  
20 diameter, crown delineation, stem diameter, quality of timber  
wood, tree value, basal area, crown closure percentage,  
development class, tree species, stem volume, and/or stem  
number per area unit and statistical attributes that are be  
derived by means of this information.

25  
19. (Previously presented) The method according to claim 1  
wherein the stem diameter of the tree can be derived by means  
of the mean diameter of the crown or the tree height and the  
mean diameter of the crown and by making use of rules based  
30 on knowledge and possible for each tree species separately.

20. (Previously presented) The method according to claim 18  
wherein the stem number is determined as a number of crowns  
determined form a image or point cloud.

21. (Previously presented) The method according to claim 1  
wherein the crown coverage percentage is defined as the  
relation between the area covered by the crowns and the whole  
5 surface.

22. (Previously presented) The method according to claim 1  
wherein in addition to attributes of individual trees of  
groups of trees and statistical data for these, also a stem  
10 number and the crown coverage percentage of a stand that is  
seen from above, are defined for a larger tree group, and  
this information is used in the estimation of attributes for  
sample plots and stands.

15 23. (Previously presented) The method according to claim 1  
wherein the stand volume is completely or partly defined by  
means of the mean height of the stand and the crown coverage  
percentage.

20 24. (Previously presented) The method according to claim 1  
wherein the definition of stand attributes is performed by  
means of a computer program.

25 25. (Currently amended) A computer program of a computer for  
the determination of stand attributes from information  
achieved by means of a laser scanner and images and in which  
there is produced a point cloud with three-dimensional  
information about the target points and describing the stand,  
comprising: with the computer program of the computer,  
30 a) ~~there is produced~~ producing a denser point cloud with more  
target points and three-dimensional information by densifying  
the point cloud produced by the laser scanner with  
information from overlapping images produced by aerial or  
terrestrial photography, and

b) determining the stand attributes are determined by means of the denser point cloud.

26. (Canceled)